



# **Technical Exchange: State Transisiton View of Declaration Management**

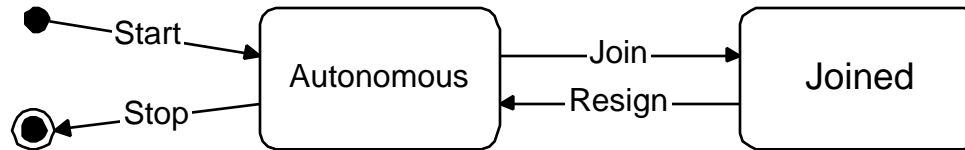
**Dr. Richard Weatherly, MITRE  
Ms. Susan Symington, MITRE  
Mr. Reed Little, SEI**

**9 October 1997**

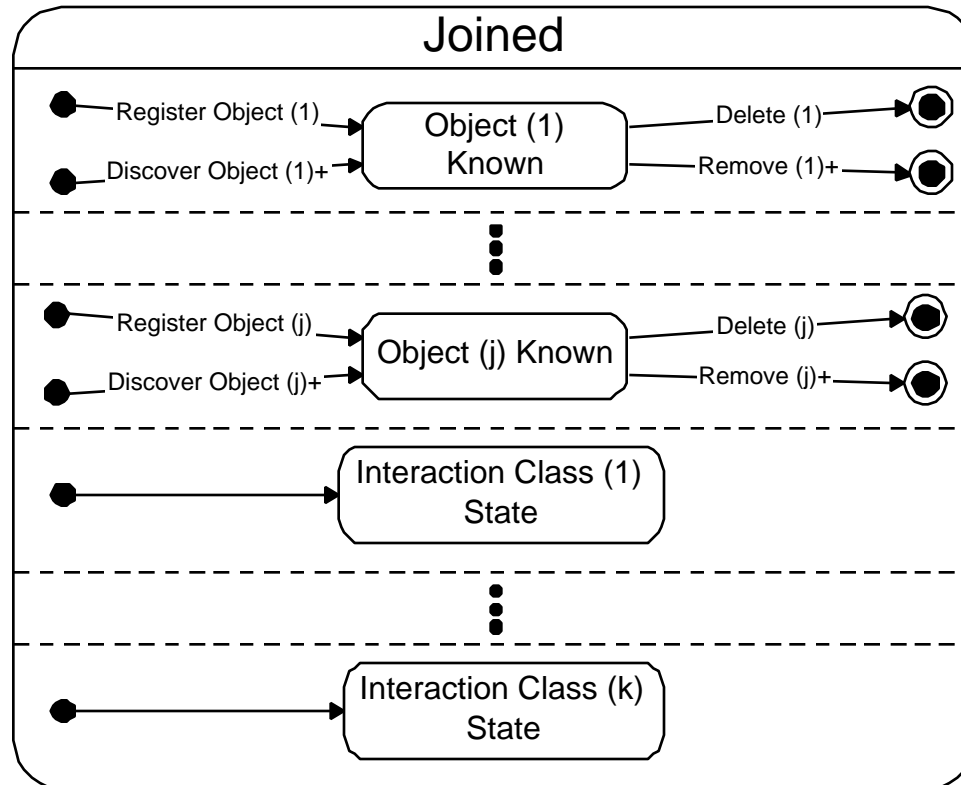
# A More Formal Description of Declaration, Object, and Data Distribution Management

- The goal is to describe the **conditions** under which a federate may
  - Update attribute values
  - Reflect attribute values
  - Send Interactions
  - Receive Interactions
- All discussion is from the perspective of a given federate
- The **conditions** are determined strictly by RTI services calls made by the federate and federate services calls made by the RTI
- State transition diagrams are used to present these conditions

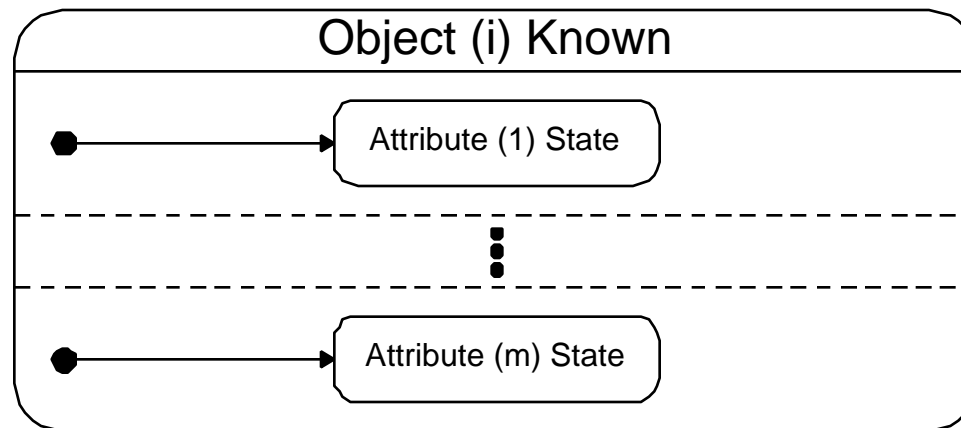
# In The Beginning There is a Federate, And That Federate Joins a Federation...



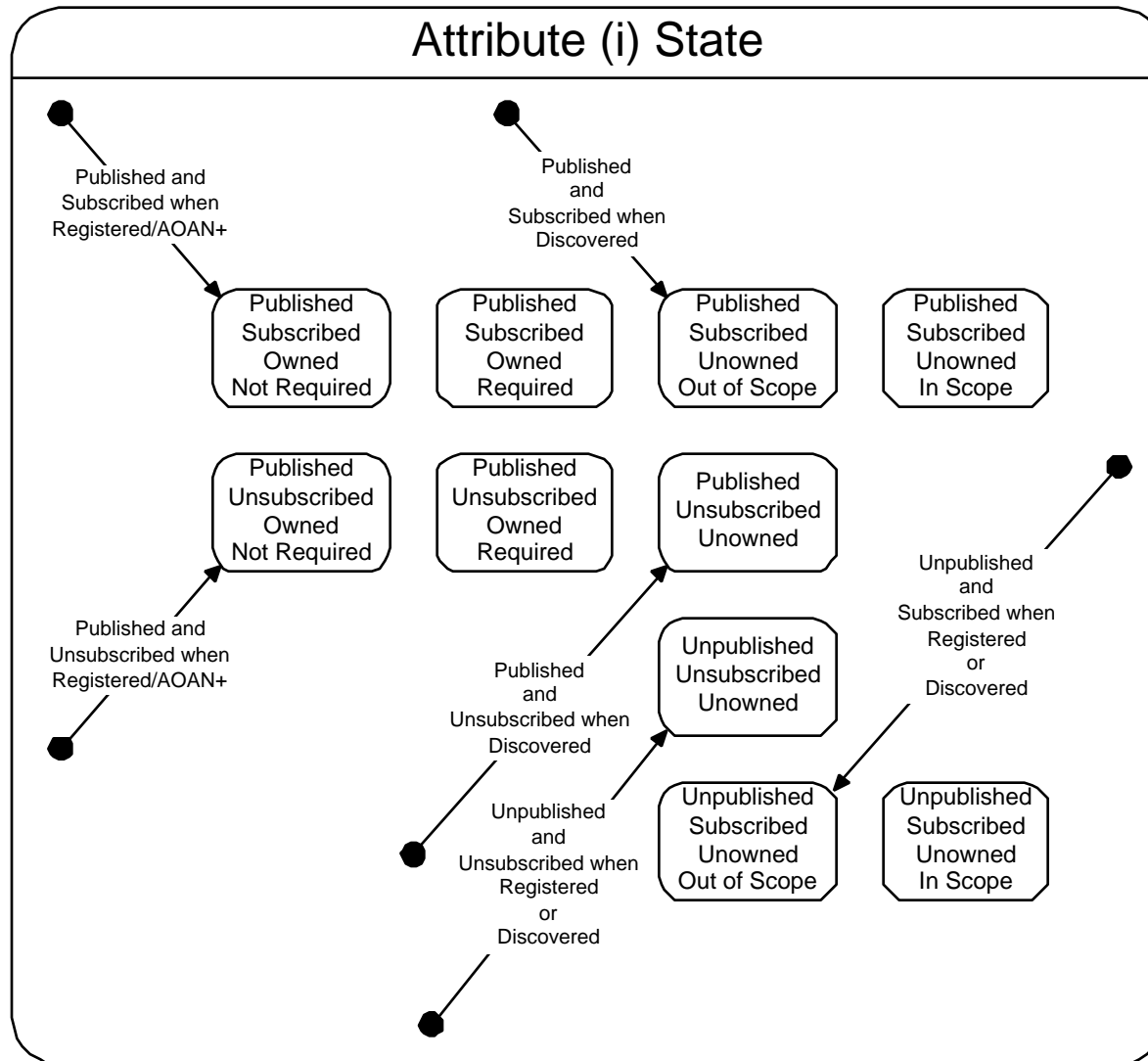
# And That Federate Knows Objects and Uses Interactions Classes



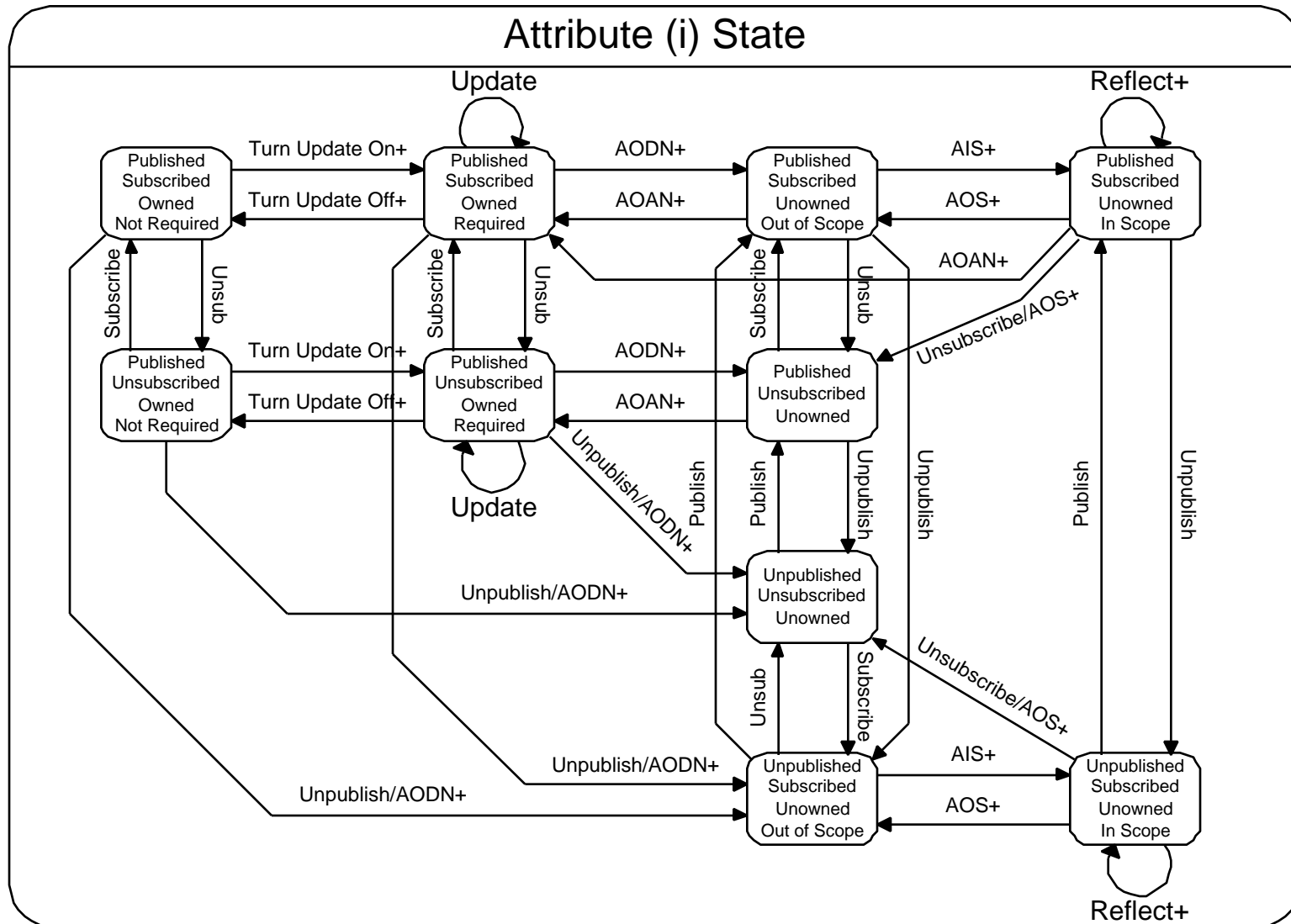
# And Those Objects Have Attributes



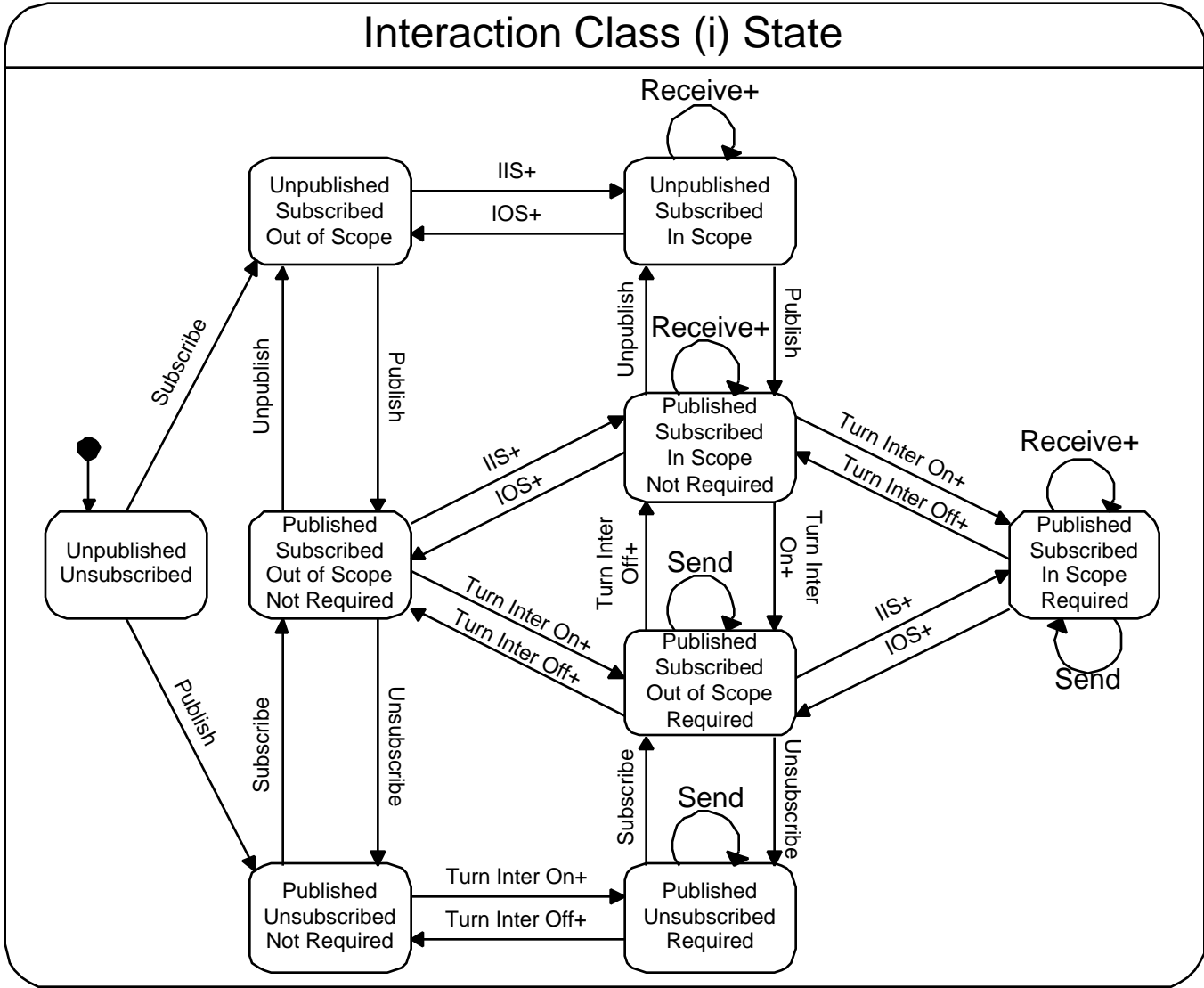
# And Those Object Attributes Have State



# And Those Object Attribute States Can Change



## Interaction Classes Also Have State





## **What is Next?**

- **Information like this will be included in an I/F Specification rational document**
- **Working with Prof David Garlan's group at CMU to improve the state representation and extend it where applicable**